

A1/ 1. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:7.

A2 sub B1/ 5. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence that:  
(a) encodes the amino acid sequence of SEQ ID NO:7; and  
(b) hybridizes under highly stringent conditions to the nucleotide sequence of SEQ ID NO:6 or the complement thereof.

6. (Amended) An isolated nucleic acid molecule comprising the nucleic acid sequence of SEQ ID NO:6.

Please add new claims 7-9 as follows:

--7. (New) A recombinant expression vector comprising the isolated nucleic acid molecule of claim 1.

A3 8. (New) The recombinant expression vector of claim 7, wherein said isolated nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO:6.

9. (New) A host cell comprising the recombinant expression vector of claim 7.--

## RESPONSE

### I. Restriction Requirement

The Examiner has determined that the original claims are directed to three separate and distinct inventions under 35 U.S.C. § 121, as follows:

- Group I: Claims 1-3, said to be drawn to an isolated nucleic acid encoding SEQ ID NO:2, classified in class 435, subclass 69.1;
- Group II: Claims 1, 4, said to be drawn to an isolated nucleic acid encoding SEQ ID NO:4, classified in class 435, subclass 69.1; and
- Group III: Claims 1, 5-6, said to be drawn to an isolated nucleic acid encoding SEQ ID

NO:7, classified in class 435, subclass 69.1.

## **II. Response to Restriction Requirement**

In response to the Restriction Requirement, Applicants hereby elect without traverse to prosecute the claims of the Group III invention (claims 1, 5 and 6), drawn to an isolated nucleic acid encoding SEQ ID NO:7, classified in class 435, subclass 69.1. Accordingly, claims 2-4 have been canceled herein without prejudice and without disclaimer as being drawn to non-elected inventions.

Applicants reserve the right to refile claims to the non-elected inventions in one or more future applications retaining the priority date of the present case and the earlier cited priority applications.

## **III. Status of the Claims**

Claims 2-4, representing the Group I and II inventions, have been canceled without prejudice and without disclaimer as being drawn to non-elected inventions. No claims of the Group III invention have been canceled. Claims 1, 5 and 6 have been amended. New claims 7-9 have been added.

Claims 1 and 5-9 are therefore presently pending in the case. For the convenience of the Examiner, a clean copy of the pending claims is attached hereto as **Exhibit A**. In compliance with 37 C.F.R. § 1.121(c)(1)(ii), a marked up copy of the original claims is attached hereto as **Exhibit B**.

## **IV. Support for the Amended and Newly Added Claims**

Claim 1 has been amended to reflect the response to the Restriction Requirement in Section II, above.

Claim 5 has been amended to further clarify the claim, and to recite that the stringent hybridization conditions are highly stringent hybridization conditions. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least in claim 5 as originally filed, and in the specification at page 4, lines 24-35.

Claim 6 has been amended to specifically recite an isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:6. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least in Section 5.1.

Claims 7 and 8 have been added to specifically recite recombinant expression vectors

comprising isolated nucleic acid molecules of the invention. Support for these claims can be found throughout the specification as originally filed, with particular support being found at least at page 13, lines 10-17.

Claim 9 has been added to specifically recite host cells comprising the recombinant expression vectors of claim 7. Support for this claim can be found throughout the specification as originally filed, with particular support being found at least at page 13, lines 17-23.

It will be understood that no new matter is included within the amended or newly added claims.

#### V. Inventorship

In response to the Examiner's reminder that, upon election of claims in response to the Restriction Requirement, inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) (the Requirement at page 2), Applicants note that amendment of inventorship does not require "a petition under 37 C.F.R. § 1.48(b)" (the Requirement at page 3), but rather a request as set forth in 37 C.F.R. § 1.48(b)(1) and the processing fee as set forth in 37 C.F.R. § 1.17(i). Applicants therefore respectfully request amendment of the inventorship of the present application under 37 C.F.R. § 1.48(b)(1) in order to remove the inventors of the non-elected claims, since their invention is no longer being claimed in the present application as amended. The inventors *that are requested to be removed* as a result of the cancellation of the non-elected claims as a result of the response to the restriction requirement are D. Wade Walke and Brian Mathur. The inventors of the remaining claims are, therefore, C. Alexander Turner, Jr., Carl Johan Friddle and Brenda Gerhardt. Therefore, as a result of this amendment, the first named inventor of the present application is C. Alexander Turner, Jr.

As set forth under 37 C.F.R. § 1.48(b)(2), the Commissioner is hereby authorized to charge the fee required under 37 C.F.R. § 1.17(i) for this amendment and request to correct inventorship to Deposit Account No. 50-0892.

#### VI. Conclusion

The present document is a complete response to the Restriction and Election Requirement. Applicants believe that the claims of the instant application meet all of the conditions for patentability and are in condition for allowance. Accordingly, an early indication of the same is respectfully